

12-2013

# USING SYSTEMIC CONSTELLATION IN TEACHING/LEARNING IM IN IS EDUCATION

Toon Abcouwer

Bas Smit

Follow this and additional works at: <http://aisel.aisnet.org/siged2013>

---

## Recommended Citation

Abcouwer, Toon and Smit, Bas, "USING SYSTEMIC CONSTELLATION IN TEACHING/LEARNING IM IN IS EDUCATION" (2013). *2013 Proceedings*. 19.  
<http://aisel.aisnet.org/siged2013/19>

This material is brought to you by the SIGED: IAIM Conference at AIS Electronic Library (AISeL). It has been accepted for inclusion in 2013 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

## Using systemic constellation in teaching/learning IM in IS education

Toon Abcouwer  
Faculty of Science  
University of Amsterdam  
abcouwer@uva.nl

Bas Smit  
Faculty of Economics and Business  
University of Amsterdam  
bassmit@uva.nl

### Abstract:

Information management is a relatively young field. Even though the term surfaced since the 1970s, it has evolved into a major resource for companies and organizations, with a high cost associated. As such there is a great need for qualified people. Given the complexities and links, this is not an easy task. Information management is a skill not easily acquired.

To assist in understanding and dealing with all the complexities there are models. This paper addresses methods used to teach the finer details of applying these models, which is not a straightforward exercise. An often used model is the Amsterdam information management model. We will focus our efforts on teaching this particular model to students and practitioners in the field of IS.

To aid in applying the model we identified a possible approach using the theory of Systemic constellations. This gives a clear insight into the deeper, often conflicting issues arising from applying the different dimensions of the AIM model. Additionally this method offers an approach into resolving the (Herbert & Hartog, 1986) conflicting issues in an open manner.

**Keywords:** Information management, IS education, systemic constellation

## INTRODUCTION: WHAT IS INFORMATION MANAGEMENT

The fact that modern ICT would have a major influence on organizations was recognized at an early stage. Leavitt and Whisler for example, observed as early as 1958 that Information technology would soon spread (Leavitt & Whisler, 1958). As one of the main cause for this they stated: "One important reason for expecting fast changes in current practices is that information technology will make centralization much easier" (p. 43). In their view, modern information technology encroaches on one of the dilemmas that organizations grapple with, namely the impact of technology on how organizations act. Therefore, it makes sense that the alignment (as we often call the process of linking business with ICT) is a central issue for the management of organizations. This is also proved by the various studies that have been published over the years. [see for this study amongst other (Henderson & Venkatraman, 1993) (Luftman & Ben-Zvi, 2011; Luftman & Kempaiah, 2008; Luftman, Kempaiah, & Nash, 2006), (Herbert & Hartog, 1986), (Brancheau, Janz, & Wetherbe, 1996; Brancheau & Wetherbe, 1987), (Nath, 1989) or <http://www.simnet.org>]. Furthermore, Luftman states that the issue has been in the top 10 of issues that are considered important ICT subjects by the management of organizations and that the subject has been in first or second place uninterrupted ever since 1994. In this article we use the Amsterdam Information Management model to describe the basic concepts behind Information Management, the need for Business IT alignment and the need for further education on this field. This model is an extension of the Strategic Alignment Model of Henderson and Venkatraman (1993). In short the logic behind this model is described below.

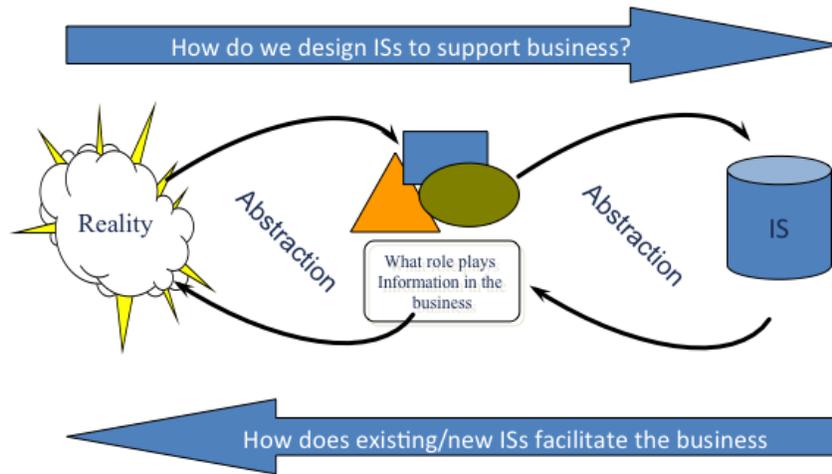


Figure 1: An organization seen from the perspective of information provision (Abcouwer, Maes, & Truijens, 1997; Abcouwer, Truijens, & Gels, 2006)

### THE AIM MODEL

The alignment between business and ICT can be viewed along two different lines. On the one hand, there is the necessity for paying attention to the organization's goals and performance, to the role that is to be played by information and communication and how these things are realized in operational systems (see figure 1). On the other hand, there has to be attention for the relationship between the formulated goals and the structure in which one works on the realization of these goals. This relationship is shown in figure 2 (Abcouwer et al. 2006).

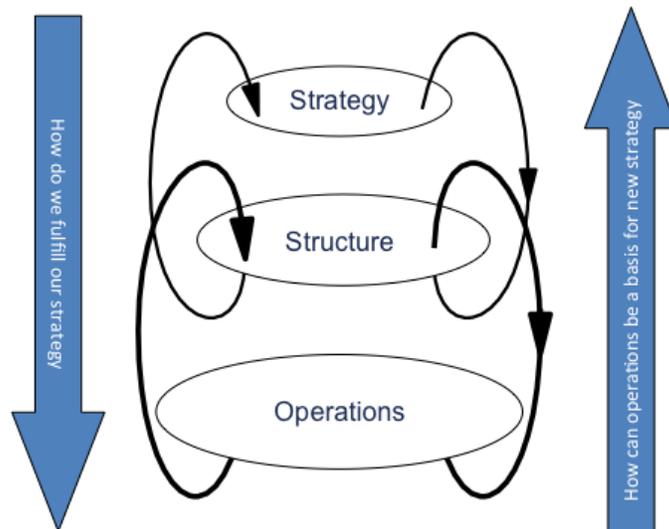


Figure 2: The organizational coherence between strategy and operations in the organization.

The AIM model is created by combining these two dimensions (see figure 3) (Abcouwer et al., 1997; Abcouwer et al., 2006; R. Maes, 2007; R. E. Maes, 2003)). Within the model, two questions take central

stage:

- one policy question, on how the organization's goals are supported by making use of the possibilities as offered by ICT (the center column) and
- one architecture question, on how the information provision should be set up for it to be able to support the organization optimally in the realization of its goals (the center row). In this, the alignment between the architecture of the information provision and the organization's structure takes central stage.

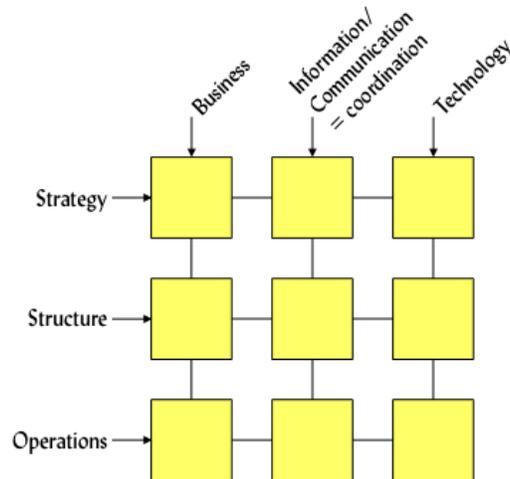


Figure 3: The Amsterdam Information management model (Abcouwer et al. 1997)

Therefore, these two central questions can be positioned on the two central axes of the AIM model. This implies that the four corner domains can be considered as the exogenous variables that delimit the IM playing field. For this demarcation, the attention needs to be focused on the strategic goals of the organizations (upper left), on the strategic opportunities as offered by modern ICT (upper right), on the way in which the business professionals work on realization of the goals (bottom left) as well as on the system that they have at their disposal in this (bottom right).

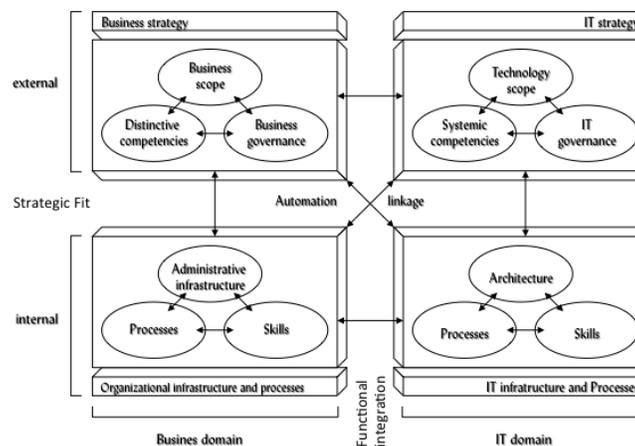


Figure 4: The Strategic alignment(SAM) model by Henderson et al.

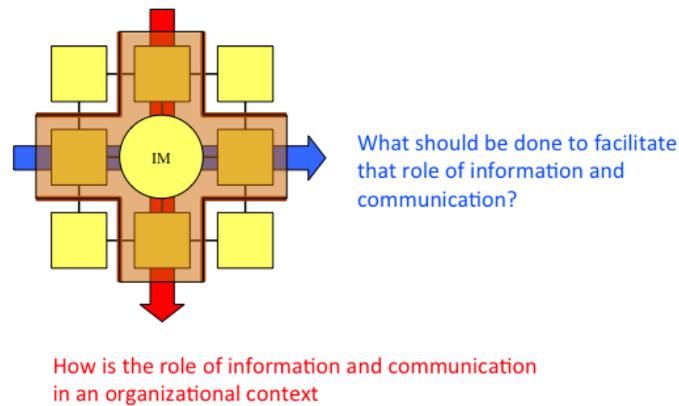


Figure 5: The additional row and column within the AIM model as compared with the SAM model.

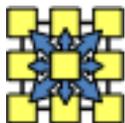
In the SAM (figure 4), the attention is mainly focused on the issue of how the four individual corner domains of the model have to be designed. However, the issues that are relevant to the information management are found on the connecting lines between the corner domains. After all:

1. structure aspects form the connecting link between strategy (objectives) and operations and,
2. the interpretation of ICT has its consequences for the performance of the tasks of an organization, namely via the generated information and the supported communication.

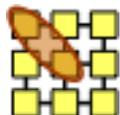
For that reason, the AIM model adds an extra column and row to the SAM (see figure 5).

### THE AIM MODEL AND 'ITS' MODEL MANAGER

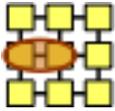
The Amsterdam Information Management model displays the information management aspect from a business perspective while other aspects, such as HRM or financial management could also be particularized in this way. Each of the two dimensions of business and information bring sub-areas with them which will be the subject of management. The business axis in the enneahedron distinguishes between strategy, structure and operations and the management disciplines involved are therefore strategic management, structural management or organizational and automation management, and operational management. In the information aspect domain, the axis in the 3\*3 AIM model is divided into business management, information management and technology management (Avison, Jones, Powell, & Wilson, 2004). The information management model is the basis for describing aspects of the work of information managers.



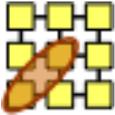
The 3\*3 matrix model spanned by these two axes can now serve for investigating the fields of activity of a 'model manager' in more detail. We have postulated that the heart of the enneahedron represents the viewpoint of the information manager as it is the locus of the functional ICT support of the business, which is covered by the information architecture. Here the Information manager is playing a DIRECTORS ROLE. We have opted to typify the other fields of activity as roles and we give them characteristic names that could be used more or less as a sort of archetype.



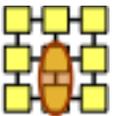
The ICT PARTNER IN STRATEGY is a member of the management team with business responsibilities. Through his ICT profession, he discovers strategic opportunities in his field of activity, investigates strategic observations as to their ICT implications and assesses the opportunities and risks of large, long-term programs.



The ALIGNMENT MANAGER is responsible for ensuring that business activities run in accordance with the organization's structure. But he is also co-responsible for this structure, certainly in the case of information-intensive organization's that simply cannot function without ICT (Winterink, 2003). After all, alignment (aligning business and information facilities) does not call for a unilateral approach and this concerns not only information management's assignment but also the possibilities offered by the technical facilities and their 'tuning'. The alignment role of the information manager is probably the final justification of his position.



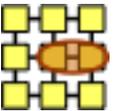
The BUSINESS PARTNER has an eye for the processes and process-management in the organization. He is an active participant who is actively involved in process design and supplies applications that improve processes and insight into this, and which also help to implement non-primary activities more effectively.



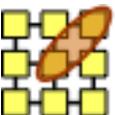
USER AMBASSADOR is certainly not an honorary position. He has to pay full attention to the actual use of the facilities for which he is responsible. What is the status of the actual use of business applications, of desktop facilities, of the intranet, or Internet at the workstation? What projects are in progress and what is the level of satisfaction regarding team-support software? Are the facilities for knowledge sharing functioning adequately and are they being used effectively or are there signs of 'lazy' use? Obvious support facilities such as helpdesks must work faultlessly and generate stimuli for improving the service but, also for less obvious issues such as the progress of outsourced services, SLA conformity must be continuously monitored. This ambassador has a lot of responsibility.



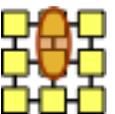
The APPLICATION MANAGER is not someone in grey overalls but a manager who administers tens if not hundreds of applications and is therefore responsible for the daily operation of all ICT resources used in the organization and on which it depends. His main responsibility is to ensure that the executive organization has a solid safety net for everyday problems and is capable of performing its tasks.



The ICT FACILITIES MANAGER is an important man in an information-intensive organization! He is concerned with ensuring that the technical facilities constitute a reliable whole, that configurations and networks are structured orderly and adequately, that the application/database structures are reliable and stable and that the relationships in the application portfolio are suitable and manageable. He must also ensure that the networking facilities and those for personal computer use are supplied with the right technology and the right software package, and that these facilities (can) work together with those of business software. In short, he is concerned with the structure and interpretation of the technical facilities, from the computer center to the workstation and from ERP to desktop facilities.



The ICT TRENDWATCHER is the manager who keeps up to date with technical developments and new trends associated with these. He is concerned with new technology, new forms of deploying technology and new methods of construction, but also with trends such as 'off-shoring'.



The INFORMATION POLICY MAKER is a heavyweight in information management who outlines and implements policy regarding the 'information household' (Gels, 1996). He is not just concerned with preferred technology or supplier policy or with the information component in the strategy but also with the place of information provision in the organization, supporting operational processes, the extent to which co-ordination problems are tackled and the way in which this takes place. He is also concerned with the basic principles of support for permanent and ad hoc joint ventures and the degree of freedom in the personal use of ICT resources and the way in which this is interpreted. Moreover, policy concerning 'sourcing' will comprise guidelines both with regard to personnel and more technical areas.

So we have distinguished nine information management roles and have described the activities involved with the aspects identified in the Amsterdam Information Management Model. Mind that there is a difference between roles - as described here - as an abstract set of tasks that have to be performed and functions that are assigned to people. A function can consist of different roles!

To optimally use this approach to Information management in real practice we have to pay attention to the way how people (students or practitioners) learn and operationalize the concepts in their day-to-day practice. In the next paragraph we will elaborate on this learning demand.

## DIFFICULTIES

Utilizing this model in a learning process could be compared to the application of the six thinking hats of De Bono (De Bono, 1995). Except in the AIM model one would need to take 'nine hats'. Making things even more complex, often it's the connection between the nine areas which make the difference. To facilitate this the "roles of IM" as described above are important (Abcouwer & Truijens, 2004) Yet even while applying the roles it's difficult to address all issues systematically. Better would be to use in a way a 'multiple-eyes' principle, in which multiple people would each try to assess a situation from each role. Someone without specific knowledge can enforce a different and enriching view on reality. This way it is more likely that all dimensions would be given enough attention. But when multiple people are involved, keeping an overview becomes more difficult.

Applying the AIM model gives rise to a number of dilemmas:

- Operational versus Strategic: What gives preference? Operational excellence, or strategic value. These will often conflict. How does one settle this, while keeping an eye on the big picture?
- The old, short term versus long term. We can view the model both with a short term vision, or a long term one. Striking a balance is vitally important?
- Focus on Business or IT. Is the business leading in this relationship (cf. demand-pull) or does the technology development play a leading role (cf. technology push)?
- Will the organization play a leading role or a following one, (cf. the difference between an innovator, an early adopter, a late majority or even a laggard)

Deciding in this dilemmas which one is the most relevant in a practical organizational setting requires from the Information manager to look from the viewpoint of all the identified roles in the AIM model. From a personal perspective playing all these roles is a challenge.

All these dilemmas make reaching decisions hard. How can one be sure to strike the right balance? How can we weigh different interests of business and IT?

Our purpose is to teach this to both students and practitioners, by teaching them a way to deal with actual IM problems. The suggested approach deals with dilemmas that arise from the mutual influences in the interaction between the different roles. To get a better insight we use elements of the theory of system constellations. Below we will explain this theory briefly.



Figure 6: Dilemmas in an organizational context

## THE THEORY OF SYSTEMIC CONSTELLATIONS

According to Wikipedia the Systemic Constellation process is a trans-generational, phenomenological, therapeutic intervention with roots in family systems therapy. The Systemic Constellation process is being integrated by thousands of licensed practitioners worldwide. This way of working is also beginning to become known in the United States. A Constellation can serve as an illuminating adjunct process within a conventional course of psychotherapy. While it is rooted in the psychotherapeutic tradition, the method is distinguished from conventional Psychotherapy in that its primary aim is to identify and release deep patterns embedded within the system, not to explore or process narrative, cognitive or emotional content. The original theory in its current form is developed by the German-born Bert Hellinger (b. 1925). His first book, published in English is *Love's Hidden Symmetry* (Hellinger, 1998)

In practice systemic constellations sessions bring together people to place them in a specific role within the context of the case. From that role they have to follow their feelings and share their thoughts on the topic. In the original approach the problem owner has to decide who of the attendants will play the different roles. After that the problem owner will no longer participate in the process.

In our management game we predetermined the roles, based on the AIM roles model. In the next paragraph we will elaborate on the way how we implemented elements of the systemic constellations approach in our management game.

### A practical application in IM education

Looking at a change project on information management in an organization, it is of vital importance to receive input from all different roles. Mind again that roles do not mean it has to be different positions. Roles are merely meant as thinking perspectives. This way it is possible to get a more complete picture of the situation.

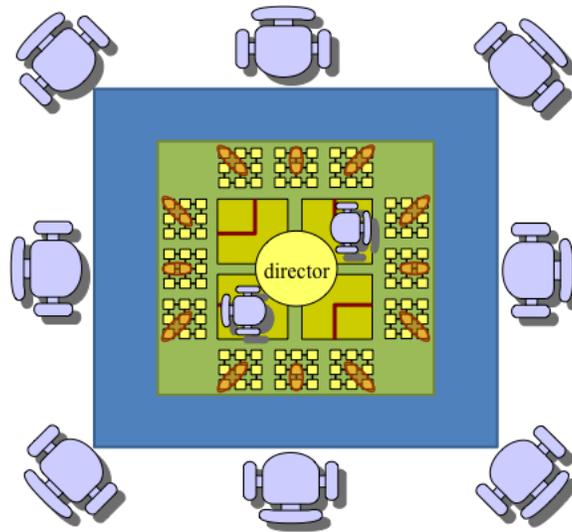


Figure 7: the IM role management game

The participants in the discussion are asked to sit at a square table where their position reflects the role they have to play in the discussion. In the middle of the table two people are asked to play the Directors role. It is their task to lead the discussion and they have to discuss loudly who they will ask the next question. Getting insight in the line of thinking of the two directors is also a learning objective and makes it possible for the other participants to mirror their thought to the one of the IM directors. The discussion that will take place in this setting reflects the insights of the different roles forms an important input of the analysis.

This analyses of the needed change can be done much more efficiently and effectively by placing everybody in a role, and letting them participate in a broad discussion of the topic, while asking the participants to keep responding only from their assigned role. After the first round of discussion a broader picture of the actual issues can be drawn, and can be used to work out a concrete plan.

This approach has been tried and tested both in an educational context as in a number of real-life situations, and proven to be successful.

The approach uses elements of the systemic constellation theory. So states the systemic constellation theory that a different person should play the identified role. This aspect is explicitly part of the approach. Enforcing people to look at the problem from a different (not their own) perspective helps to get a fresh and inspiring view on reality.

In the systemic constellation theory placing the participants on a physical location by the problem owner is part of the process. In our approach, if there is a problem owner participating, we ask him/her to choose who has to play which role. Due to the link with the AIM model the places of the roles are fixed to stimulate discussion and communication between closely related roles.

## EDUCATIONAL CASES

To get a better understanding of the suggested approach below we describe two cases which we use in our courses. You find a short description of the case as well as some considerations why the cases are useful in a didactical context.

### Case 1 Unilever (Based on Ciborra, 1996)

Unilever decided some years ago to globally facilitate the distributed research departments for dental-care (they developed the Donald Duck toothbrush and Mickey Mouse toothpaste etc. Note that there are a total of 40 research departments worldwide!) with a groupware application (IPM). This application was

based on Lotus Notes. This groupware application was aiming at exchanging as much ideas as possible within the organization. It was using the funnel-approach. If the new ideas would be freely available within the organization, via a prioritization process the selection of potential successful ideas would be possible. In the next phase the different labs would be asked to further refine the chosen idea.

For optimal use of the creativity of the staff everyone had access to the system and could respond to the proposed ideas. Initially, the process went according to plan. Everyone was very excited and the craziest ideas were openly discussed.

However, when a top manager posted a message that he very much appreciated the system and that he was impressed by the results that popped up in the discussions, the use of the groupware application from that moment on collapsed. The working floor was suddenly aware of the 'big-brother' potential of the technology.

### **Didactical considerations:**

The case is clear in its description. The problem stemmed from the mismatch between the intended horizontal cooperation and the hierarchical leadership relationship of the top manager. So the proposed method does not intend to identify the cause of the problems. By using the proposed didactical approach the students are enforced to look also at the other aspects of the case. Relevant questions that should be taken into account are among others;

- what was the real intention behind the implementation of this system. Are you absolutely sure that the top management did not intend to use the system to get a better insight in the quality of the different research labs? (the ICT partner in strategy - role)
- was the system using up-to-date and 'future proof' software? (the trend-watcher role)
- even in the given situation that the system was initially a success are you sure what made the researcher using the system? (the business partner role)

Even in cases where the cause of the problem is so obvious it does make sense to look at the other roles and their specific input. In practice it appears not to be obvious that this type of questions were taken into account.

## **Case 2 The Dutch Rabo Bank (Based on interviews with Rabo Bank Employees)**

### **General description**

The RABO bank is organized in the form of a cooperation. It means that all the local banks (in total 150) are independent and responsible for their own balance and profit position. The strength of the organization is based on the detailed knowledge of the local banks on local circumstances on their market. The traditional situation is that every bank is responsible for their own policy regarding credit facilities, interest rates etc.

The central RABO organization is responsible for the common tasks like administration, ICT etc. But the local banks remain ultimately responsible. In practice the central organization can be seen as the daughter with 150 mothers.

### **The suggested ICT solution for mortgages**

As a result of the economic developments on national and international level and changes to the system of mortgage deduction, the RABO bank decided that the central website should be able to inform the customer with the relevant and necessary information on mortgages. In the opinion of the central IT organization this information has to be publicly available and has to give direct answer the questions on interest rates, credit facilities etc. to the customer. Also the information about terms and conditions should be made available.

## The setting

The result of this policy decision is that a discussion arose about the freedom of choice of the local banks. Do you think this centrally initiated decision will lead to internal problems? Do you think this is an information related problem?

Please try to come up with a short list of decision that have to be made to overcome this conflict of interest.

## Didactical considerations

From an ICT perspective centralizing the website was an simple choice. But given the organizational setting the choice is not that obvious. Until recently the RABO bank had a triple-A qualification. The main reason for that was that the management of the local banks had a much better insight in the background of their customers. They were better able to make an estimate of the financial risks. Many independent RABO banks are sited in the countryside where the directors were member of the notables of the village. In small communities like that, where everyone knows each other, the irresponsible behavior of one of the villagers will normally be known by the community of which the bank is a central part.

Relevant questions are among others:

- How far does the centralization of the of the website influence the flexibility of the different local banks? (Business partner role)
- Is it possible to facilitate that flexibility even in a centralized website? (trend-watcher and ICT facility manager role)
- Is it possible to develop a different process to facilitate the local banks even in the situation of a centralized website (alignment manager role)

The learning objective for using this cases is not to solve the specific problem but convince the students that it makes sense to also look at the case from the other perspectives.

## Practical experiences

As shown by the cases the suggested approach helps to better understand the complex relationship between ICT and business. It makes also clear that it does make sense to look at reality from a broad perspective. The use of the roles model based on the AIM-model appears to be of real help. We used the suggested approach both in educational situations as in real life situations in organizations. The approach makes it necessary that people have to come together to discuss the case and exchange opinions based on the different roles in the model. This situation also leads to some potential problems:

- Bringing together people from different hierarchical levels may influence the freedom of speech of lower-level employees
- In educational settings it is quite simple to get people together. In a business setting this may be a real problem. Especially higher-level management might be unwilling to spend part of their expensive time to play a management game like this.
- People with a big mouth may have more influence in the discussion

In practice we faced problems like these. Some of the afore mentioned problems may be overcome by using modern ICT. We are working on a e-learning environment to facilitate the process. For now the results of this system are not known yet, so they are out of scope of this article and will be part of future research and publications.

Even though, in its current form the results of the approach are that promising that it should be possible to further elaborate the management game. Further experiments and research keeps necessary on this field.

## CONCLUSION

In this article we introduced an approach to aid helping students learn and understand the complexities of information management. As described in this article we firmly believe and found also considerable proof that this approach helps people to get a better insight in real life problems. Using the roles model really helps them in better understanding the real background of a problem under study. The fact that we enable, even stimulate, people to approach it from multiple different perspectives, helps them to overcome 'tunnel vision' that easily may occur when people only start reasoning from their own background.

Another advantage is that we look at different aspect of the problem by enforcing the use the different roles. In many cases the real problem initiates from a different position than the position where the first characteristics of the problem pops up in the organization. It is this broader perspective that helps the organization to better overcome the problem.

Even though these advantages are promising, solving the identified potential problems requires further research and more experiments. As mentioned before one of the most promising innovations is the use of 'computer supported cooperative work' approaches via an interactive website. Results of the development will be published in future conferences.

- Abcouwer, A. W., Maes, R., & Truijens, J. (1997). Contouren van een generiek model voor informatiemanagement. *Tijdschrift Management en Informatie*, 5(3), 92-102.
- Abcouwer, A. W., & Truijens, J. (2004). Who is managing the information. Amsterdam: Primavera.
- Abcouwer, A. W., Truijens, J., & Gels, H. (2006). *Informatiemanagement en Informatiebeleid*. Den Haag: SDU.
- Avison, D., Jones, J., Powell, P., & Wilson, D. (2004). Using and validating the strategic alignment model. *Journal of Strategic Information Systems*, 13(3), 223-246.
- Brancheau, J. C., Janz, B. D., & Wetherbe, J. C. (1996). Key Issues in Information Systems Management: 1994-95 SIM Delphi Results. *MIS Quarterly*, 20(2), 225-242.
- Brancheau, J. C., & Wetherbe, J. C. (1987). Key Issues in Information Systems Management. *MIS Quarterly*, 11(1), 23-45.
- Ciborra, C. (Ed.). (1996). *Groupware and teamwork : invisible aid or technical hindrance?* Chichester ; New York: Wiley.
- De Bono, E. (1995). *Serious creativity*. Harper Business.
- Hellinger, B. (1998). *Love's hidden symmetry: what makes love work in relationships*: Zeig Tucker & Theisen Publishers.
- Henderson, J. C., & Venkatraman, N. (1993). Strategic alignment: Leveraging information technology for transforming organizations. *IBM systems journal*, 32(1), 4-16.
- Herbert, M., & Hartog, C. (1986). MIS rates the issues. *Datamation*, 32(22), 79-86.
- Leavitt, H. J., & Whisler, T. L. (1958). MANAGEMENT in the 1980's. *Harvard Business Review*, 36(6), 41-48.
- Luftman, J., & Ben-Zvi, T. (2011). Key issues for IT executives 2011: Cautious optimism in Uncertain Economic Times. *MIS Quarterly Executive*, 10(4), 203-212.
- Luftman, J., & Kempaiah, R. (2008). Key Issues for IT Executives 2007. *MIS Quarterly Executive*, 7(2), 269-286.
- Luftman, J., Kempaiah, R., & Nash, E. (2006). Key issues for IT executives 2005. *MIS Quarterly Executive*, 5(2), 81-99.
- Maes, R. (2007). An Integrative Perspective on Information Management. In A. Huizing & E. J. Vries de (Eds.), *Information Management: Setting the Scene* (pp. 11-26). Amsterdam: Elsevier Science.
- Maes, R. E. (2003). IM in kaart gebracht, Primavera workingpaper series 2003-02. In R. E. Maes (Ed.), *Primavera workingpaper series*. Amsterdam: Universiteit van Amsterdam.
- Nath, R. (1989). Aligning MIS with the business goals. *Information and Management*, 16(2), 71-79.